IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Kurt Leipold	**GROUP:**	2615
SERIAL NO:	10/673,914	**EXAMINER:**	Lun Lao
FILING DATE:	September 29, 2003		
FOR:	SOUND SYSTEM FOR A VEHICLE		

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDED APPEAL BRIEF

This amended appeal brief is in response to the Notice of Non-Compliant Appeal Brief dated October 15, 2009. The proper headings are now included.

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being transmitted electronically to the Commissioner for Patents via EFS-web, on the date indicated below.

Sarah L. Henry
10/20/09
Date

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I. REAL PARTY OF INTEREST

The real party of interest is Harman Becker Automotive Systems GmbH of Karlsbad, Germany.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

On August 29, 2008, the appellant appealed from the May 29, 2008 rejection of pending claims 1-34 under 35 U.S.C. §§ 102(b) and 103(a). Claims 1-34, which are set forth in the Claims Appendix attached hereto, are all the remaining claims in this application.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the May 29, 2008 rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 recites a sound system for a vehicle having at least one door. The various elements recited in claim 1 are discussed in the specification in at least the following locations of the published application, amongst others:

FEATURES OF CLAIM 1	SPECIFICATION
A sound system for a vehicle having at least one door, the sound system comprising:	FIGS. 1-2
a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and a second cavity situated inside a structural component of a frame of the at least one door and outside of any other door within the vehicle; and	Paragraphs [0035]-[0037], [0039]-[0040], [0045], [0047] and [0053] FIGS. 1-9 Elements 4-7, 9, 13, 17, 19-21, 23, 26-28, 30, 36-39 and 41-42
means for pneumatically coupling the first and second cavities to form the resonant volume.	Paragraphs [0036], [0044] and [0046]-[0055] FIGS. 1-11B Elements 10-12, 14, 18, 27-29, 32-37, 40 and 45

Claim 21 recites a sound system for a vehicle having at least one door. The various elements recited in claim 21 are discussed in the specification in at least the following locations of the published application, amongst others:

FEATURES OF CLAIM 21	SPECIFICATION
A sound system for a vehicle having at least one door, the sound system comprising:	FIGS. 1-2
a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume defined within hollow parts of a support frame of the vehicle; and	Paragraphs [0035]-[0037], [0039]-[0040], [0045], [0047] and [0053] FIGS. 1-9 Elements 4-7, 9, 17, 19-21, 23, 26-28, 30, 36-39 and 41-42
means for pneumatically coupling the first and second cavities to form the resonant volume.	Paragraphs [0036], [0044] and [0046]-[0055] FIGS. 1-11B Elements 10-12, 14, 18, 27-29, 32-37, 40 and 45

Claim 28 recites a sound system for a vehicle having at least one door. The various elements recited in claim 28 are discussed in the specification in at least the following locations of the published application, amongst others:

FEATURES OF CLAIM 28	SPECIFICATION
A sound system for a vehicle having at least one door, the sound system comprising:	FIGS. 1-2
a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume inside a structural component of the frame of the at least one door; and	Paragraphs [0035]-[0037], [0039-0040], [0045], [0047] and [0053] FIGS. 1-9 Elements 4-7, 9, 13, 17, 19-21, 23, 26-28, 30, 36-39 and 41-42
means for pneumatically coupling the first and second cavities to form the resonant volume.	Paragraphs [0036], [0044] and [0046]-[0055] FIGS. 1-11B Elements 10-12, 14, 18, 27-29, 32-37, 40 and 45

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Rejection of claims 1-4, 12-19, 21 and 24-28 as being anticipated under 35 U.S.C. §102(b) over JP 07-267003 to Otani (hereinafter "Otani").

Rejection of claims 5-11, 20, 22-23 and 29-34 as being unpatentable under 35 U.S.C. §103(a) in view of the subject matter disclosed in Otani.

VII. ARGUMENT

REJECTION UNDER 35 U.S.C. §102 - OTANI

CLAIM 1

Claim 1 recites a sound system for a vehicle having at least one door. The system comprises:

> "a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and a second cavity situated inside a structural component of a frame of the at least one door and outside of any other door within the vehicle; and
>
> means for pneumatically coupling the first and second cavities to form the resonant volume." (cl. 1, emphasis added)

The May 29, 2008 Official Action alleges that the claimed feature of "*a second cavity situated inside a structural component of a frame of the at least one door and outside of any other door within the vehicle*" reads on the connection pipe 40 of Otani. (pg 3, first paragraph). Specifically, the Office Action alleges that the claimed first cavity reads on element 50a, 50b in door 20, 30, and the claimed second cavity reads on the connection pipe 40 in Fig. 4 of Otani. However, it is respectfully submitted that element 50a, 50b cannot be joined with the connection pipe 40 to form a resonant volume because the connection pipe 40 has two openings 50a' and 50b' on each opposing end. In other words, acoustic energy is free to pass through the second opening 50a', 50b' and thus out of the connection pipe 40. The connection pipe 40 was designed to connect elements 50a and 50b to form a overall volume. Specifically, Otani recites, "*since it becomes what applied the capacity of the connection pipe which connects these two front doors with the capacity of two front doors for the cabinet capacity of a loudspeaker according to the 4th example of this invention, the cabinet capacity as the whole loudspeaker can increase and*

the bass ability to regenerate can be improved." (paragraph [0035]). Accordingly, it is clear that reading the claimed first cavity onto element 50a, 50b and the claimed second cavity onto the connection pipe 40 results in a system incapable of forming the claimed resonant volume.

The December 13, 2007 Official Action alleges that the claimed feature *"a second cavity situated inside a structural component of a frame of the at least one door and outside of any other door within the vehicle"* reads on the elements 5a, 5a' and 5b of Otani. (pg. 11, Response to Arguments). Specifically, the Official Action alleges that the claimed first cavity reads on element 5a, and the claimed second cavity reads on elements 5a', 5b of FIG. 1 of Otani. However, it is respectfully submitted that the claimed invention as a whole is not being considered. Claim 1 recites that **a resonant volume is formed** by the first and second cavities. Since elements 5a' and 5b of Otani are merely openings connected by a tube pipe 6, a resonant volume is not formed by merely connecting the first opening part 5a with the second open end 5b via the tube pipe 6, since the tube pipe 6 includes the second open end 5b, preventing the system from operating as a resonant volume. That is, acoustic energy is free to pass through second open end 5b, and thus out of the second cavity of the Official Action's construction. Accordingly, it is clear that reading the claimed first cavity onto element 5a, and the claimed second cavity onto elements 5a', 5b results in a system incapable of forming the claimed resonant volume.

CLAIM 21

Claim 21 recites a sound system for a vehicle having at least one door. The system comprises:

> "a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume defined within hollow parts of a support frame of the vehicle; and
> means for pneumatically coupling the first and second cavities to form the resonant volume." (emphasis added, cl. 21)

As set forth above with respect to claim 1, it is again respectfully submitted that reading the claimed second cavity onto elements of 40 or 5a', 5b of Otani is improper since the resultant system would not operate as a resonant volume. Accordingly, Otani is incapable of anticipating claim 21.

CLAIM 28

Claim 28 recites a sound system for a vehicle having at least one door. The sound system comprises:

> "a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume inside a structural component of the frame of the at least one door; and
> means for pneumatically coupling the first and second cavities to form the resonant volume." (emphasis added, cl. 28)

As set forth above with respect to claims 1 and 21, it is again respectfully submitted that reading the claimed second cavity onto elements of 40 or 5a', 5b of Otani is improper, since the resultant system would not operate as a resonant volume. Audio waves are allowed to pass through opening 50a', 50b' or 5b of Otani, thus preventing the hypothetical system that results from

construing the claimed second cavity as elements 40 or 5a', 5b as the second cavity from working as a resonant volume. Accordingly, Otani is incapable of anticipating claim 28.

CLAIMS 2-4, 12-19 AND 24-27

It is respectfully submitted that these rejections are now moot since the claims from which they depend are patentable for at least the reasons set forth above.

REJECTION UNDER 35 U.S.C. §103 - OTANI

CLAIMS 5-11, 20, 22-23 AND 29-32

It is respectfully submitted that these rejections are now moot since the claims from which they depend are patentable for at least the reasons set forth above.

IX. CONCLUSION

For all the foregoing reasons, we submit that the rejection of claims 1-34 is erroneous and reversal thereof is respectfully requested.

If there are any additional fees due in connection with the filing of this appeal brief, please charge them to our Deposit Account 50-3381. If a fee is required for any extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should be charged to the above Deposit Account.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented) A sound system for a vehicle having at least one door, the sound system comprising:

a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and a second cavity situated inside a structural component of a frame of the at least one door and outside of any other door within the vehicle; and

means for pneumatically coupling the first and second cavities to form the resonant volume.

2. (Previously Presented) The sound system of claim 1, where the means for coupling comprises a first opening in the first cavity and a second opening in the second cavity, the first and second openings being arranged in close proximity to each other when the door is closed.

3. (Previously Presented) The sound system of claim 2, where at least one of the two openings is provided with a sealing lip, which is compressed when the door is closed and seals off the coupling of the two cavities from the outside.

4. (Previously Presented) The sound system of claim 2, where at least one of the two openings is provided over the cross-sectional area with an acoustically neutral cover that is permeable to air.

5. (Previously Presented) The sound system of claim 1, where the two cavities are coupled to one another by a telescopic tube connection.

6. (Previously Presented) The sound system of claim 5, where the telescopic tube connection has two tubes that can be displaced one inside the other and engage in openings of the cavities.

7. (Previously Presented) The sound system of claim 6, where at least one of the tubes is connected in an articulated manner to one of the two cavities.

8. (Previously Presented) The sound system of claim 1, where a partially flexible tube is provided for the articulated connection.

9. (Previously Presented) The sound system of claim 1, where the two cavities are coupled to one another by a bellows, which connects two openings in the cavities.

10. (Previously Presented) The sound system of claim 1, where the two cavities are coupled to one another by a flexible hose that connects two openings in the cavities.

11. (Previously Presented) The sound system of claim 10, where the loudspeaker is surrounded by a box defining the first or second cavity.

12. (Previously Presented) The sound system of claim 1, where at least one of the cavities is open to the outside of the resonant volume via diffusion openings.

13. (Previously Presented) The sound system of claim 1, where the second cavity includes a volume defined at least by hollow parts of the support frame of the vehicle.

14. (Previously Presented) The sound system of claim 13, where the support frame includes an A-pillar of the vehicle.

15. (Previously Presented) The sound system of claim 13, where the support frame includes a B-pillar of the vehicle.

16. (Previously Presented) The sound system of claim 13, where the support frame includes a sill of the vehicle.

17. (Previously Presented) The sound system of claim 1, where the second cavity includes a volume surrounded by bodywork parts of the vehicle.

18. (Previously Presented) The sound system of claim 1, where the loudspeaker is installed in the bodywork parts.

19. (Previously Presented) The sound system of claim 1, where the loudspeaker is arranged in the door.

20. (Previously Presented) The sound system of claim 1, where the first cavity is pneumatically coupled to a third cavity situated outside the door by further coupling devices.

21. (Previously Presented) A sound system for a vehicle having at least one door, the sound system comprising:

a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume defined within hollow parts of a support frame of the vehicle; and

means for pneumatically coupling the first and second cavities to form the resonant volume.

22. (Previously Presented) The sound system of claim 21, where the means for pneumatically coupling comprises a bellows.

23. (Previously Presented) The sound system of claim 21, where the means for pneumatically coupling comprises a telescoping tube connection.

24. (Previously Presented) The sound system of claim 21, where the means for pneumatically coupling comprises tubing.

25. (Previously Presented) The sound system of claim 21, where the second volume is located within an A-pillar of the vehicle.

26. (Previously Presented) The sound system of claim 21, where the second volume is located within an A-pillar and a door sill of the vehicle.

27. (Previously Presented) The sound system of claim 21, where the second volume is located within an A-pillar, a door sill and a roof support of the vehicle.

28. (Previously Presented) A sound system for a vehicle having at least one door, the sound system comprising:

a loudspeaker having a resonant volume formed by a first cavity situated inside of the at least one door and by a second cavity situated outside of the at least one door, where the second cavity comprises a volume inside a structural component of the frame of the at least one door; and

means for pneumatically coupling the first and second cavities to form the resonant volume.

29. (Previously Presented) The sound system of claim 28, where the means for pneumatically coupling comprises a bellows.

30. (Previously Presented) The sound system of claim 28, where the means for pneumatically coupling comprises a telescoping tube connection.

31. (Previously Presented) The sound system of claim 28, where the means for pneumatically coupling comprises tubing.

32. (Previously Presented) The sound system of claim 28, where the second volume is located within an A-pillar of the vehicle.

33. (Previously Presented) The sound system of claim 28, where the second volume is located within an A-pillar and a door sill of the vehicle.

34. (Previously Presented) The sound system of claim 28, where the second volume is located within an A-pillar, a door sill and a roof support of the vehicle.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.